

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A photoelectric~~Photoelectric~~ detection device comprising a matrix of elementary detectors on an insulating substrate-(1), each of the said elementary detectors comprising a stack consisting of a lower electrode-(2), a layer of a photosensitive material-(3) and a phototransparent upper electrode-(4), the said upper electrode being common to all the elementary detectors, each of the lower electrodes (2) being connected independently of one another to a sense circuit, characterized:
— in that wherein the lower electrodes (2) are each positioned on an individualized insulating zone (6) which is elevated with respect to the insulating substrate-(1); and
— and in that the upper electrode (4) is not flat and is furthermore inserted between two adjacent zones (6) until it reaches a level below that of the lower electrodes.
2. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the insulating substrate (1) consists of a layer of insulating material deposited on a signal processing circuit.
3. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the zones (6) each consist of an individualized additional insulating layer deposited on the insulating substrate-(1).
4. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the zones (6) form an integral part of the insulating substrate-(1).

5. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the zones (6) have a raised shape, so that the photosensitive detection layers (3) of two adjacent pixels face one another substantially vertically at the pixel edge, with strictly opposite polarities.

6. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the photoelectric detectors are composed ofcomprise PIN, NIP, PI, NI, IP or IN diodes.

7. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the photosensitive material (3) is based encomprises silicon.

8. (Currently Amended) The photoelectric~~Photoelectric~~ detection device according to Claim 1, wherein characterized in that the photosensitive material (3) is based encomprises silicon alloyed with hydrogen, germanium or carbon.

Claims 9 and 10 (Cancelled)